ORDINANCE NO. 12-01-2013

AN ORDINANCE OF THE CITY COUNCIL OF SANTAQUIN CITY, UTAH COUNTY, UTAH, ADDING A WATER CONSERVATION PLAN ORDINANCE BY ADOPTING CHAPTER 6 "WATER CONSERVATION PLAN" INTO THE SANTAQUIN CITY CODE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the adoption of a water conservation plan has been mandated by the State of Utah; and

WHEREAS, Santaquin City operates a culinary water system and a pressurized irrigation system; and

WHEREAS, the Santaquin City Council understands the pressing need to use water in a more efficient manner to allow for future sustained growth of the community; and

WHEREAS, City staff have caused a water conservation plan to be created; and

WHEREAS, the next and final step in putting a water conservation plan into place for Santaquin City is the adoption of a water conservation plan ordinance; and

WHEREAS, the City Council of Santaquin City desires to adopt a water conservation plan ordinance for the health, safety and welfare of the citizens of Santaquin City and place the ordinance into the Santaquin City Code; and

WHEREAS, the ordinance being adopted will achieve this stated purpose;

NOW, THEREFORE, BE IT ORDAINED by the City Council of Santaquin City, Utah County, Utah, as follows:

SECTION I.

TITLE 8, Utilities, Chapter 6 of the Santaquin City Code is hereby to read as follows:

8-6-1 TITLE:

This ordinance shall be known as the "Water Conservation Plan Ordinance."

8-6-2 PURPOSE:

The purpose for this ordinance is to create a plan for water conservation in Santaquin City by establishment of water conservation measures and goals.

8-6-3 ESTABLISHMENT OF CONSERVATION MEASURES AND GOALS:

There is hereby established a set of conservation measures and goals for Santaquin City as detailed in the Water Conservation Plan. (See Attached Plan)

SECTION II. Codification, Inclusion in the Code, and Scrivener's Errors

It is the intent of the City Council that the provisions of this ordinance be made part of the City Code as adopted, that sections of this ordinance may be re-numbered or re-lettered, that the word *ordinance* may be changed to *section*, *chapter*, or other such appropriate word or phrase in order to accomplish such intent regardless of whether such inclusion in a code is accomplished, sections of the ordinance may be re-numbered or re-lettered. Typographical errors which do not affect the intent of this ordinance may be authorized by the City without need of public hearing by its filing a corrected or re-codified copy of the same with the City Recorder.

SECTION III. Severability

If any section, phrase, sentence, or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

SECTION IV. Effective Date

The City Recorder shall deposit a copy of this ordinance in the official records of the City on December 12th, 2013, and before 5:00 p.m. on that same day, shall place a copy of this ordinance in three places within the City. This ordinance shall become effective at 5:00 p.m. on December 12th, 2013. *The plan will be amended no less than every five years and will continue to play a vital role in the future development of Santaquin City, Utah.*

Passed and duly adopted this 11th day of December, 2013.

JAMES E. DEGRAFFENRIED, Mayor

SANTAQUIN CITY Incorporated January 4, 1932 STATE OF UTAH

ATTEST:

SUSAN B. FARNSWORTH
Santaquin City Recorder

Council Member James Linford yes
Council Member Rick Steele yes
Council Member Keith Broadhead yes
Council Member Matthew Carr yes
Council Member Kirk Hunsaker yes

STATE OF UTAH)
) ss.
COUNTY OF UTAH)

I, SUSAN B. FARNSWORTH, City Recorder of Santaquin City, Utah, do hereby certify and declare that the above and foregoing is a true, full, and correct copy of an ordinance passed by the City Council of Santaquin City, Utah, on the 11th day of December, 2013, entitled

"AN ORDINANCE OF THE CITY COUNCIL OF SANTAQUIN CITY, UTAH COUNTY, UTAH, ADDING A WATER CONSERVATION PLAN ORDINANCE BY ADOPTING CHAPTER 6 "WATER CONSERVATION PLAN" INTO THE SANTAQUIN CITY CODE; AND PROVIDING AN EFFECTIVE DATE"

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Corporate Seal of Santaquin City Utah this 11th day of December, 2013.

SANTAQUIN CITY
Incorporated
January 4,
1932
STATE OF UTAH

(SEAL)

SUSAN B. FARNSWORTH
Santaquin City Recorder

AFFIDAVIT OF POSTING

STATE OF UTAH)
) ss.
COUNTY OF UTAH)

I, SUSAN B. FARNSWORTH, City Recorder of Santaquin City, Utah, do hereby certify and declare that I posted in three (3) public places the ordinance which is attached hereto on the 12th day of December, 2013.

The three places are as follows:

1. Zions Bank
2. Post Office
3. City Office

I further certify that copies of the ordinance so posted were true and correct copies of said ordinance.

SUSAN B. FARNSWORTH
Santaquin City Recorder

The foregoing instrument was acknowledged before me this 12 day of December, 2013 by SUSAN B. FARNSWORTH.

My Commission Expires: 10/1/17

Notary Public

Residing at: Utah County

SHANNON HOFFMAN
Notary Public, State of Utah
Commission #670670
My Commission Expires
October 01, 2017

Santaquin City Corporation

WATER CONSERVATION PLAN

Santaquin
A Breath of Fresh Air

A Community Prospering in Country Living
(Agriculture, Equestrian, Recreation)

December 11, 2013
Prepared by Santaquin City Public Works

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INTRODUCTION

Santaquin City and its leaders have worked diligently, for many years, to insure adequate water for current and future residents, businesses, and institutions, and will continue to do so. The City owns and operates both a culinary water system and a pressure irrigation system. The culinary water system provides for all potable water demands requiring a high quality of water and is used for outside watering in commercial, industrial, and some residential areas. It also provides for fire protection. The culinary system has evolved over many years since the incorporation of Santaquin on March 10, 1932.

The pressure irrigation system provides for all other outside watering demands using raw surface water sources and irrigation wells heretofore used for flood irrigation, supplemented by culinary water through 3 backflow preventers. Construction of the Pressure Irrigation System began in August 2006 with completion in April 2009. Use of Schedule 2 began in June of 2007. Schedule 3 was completed and service began in August 2007. Schedules 1 and 4 were completed and service began in April 2009. Table 1 shows the schedules of construction and the dates of beginning construction and putting the facilities in service.

Table 1

Pressure Irrigation Project Schedule			
Area	**Construction Began**	**Service Began**	**Source of Funds**
The Ted Ahlin Pond (Schedule 1)	Spring 2008	Spring 2009	Utah Community Impact Board
West of I-15 and South of Main Street (Schedule 2)	Spring 2006	Spring 2007	Utah Community Impact Board & Water Conservation Credit Program
West of I-15 and North of Main Street (Schedule 3)	Spring 2007	Spring 2008	Utah Community Impact Board & Water Conservation Credit Program
East of I-15 (Schedule 4)	Fall 2008	Spring 2009	Utah Community Impact Board & Water Conservation Credit Program

Because we are in the second driest state in the nation, water conservation and the wise use of water has been a focal point on both a local and state level. The state legislature in 1998 passed the Utah Water Conservation Plan Act (House Bill 153), revised in the 1999 legislative session (Section 73-10-32 Utah Code Annotated), updated in the 2004 General Session. This water conservation plan addresses the concerns of leaders and citizens of both Santaquin and the State of Utah. The Act relates to water and irrigation, requesting cities to implement and update every 5 years, a water conservation plan. The "Recommended Best Management Practices (BMP) for Utah's Water Providers" was used as an aid in preparing this Comprehensive Water Conservation Plan (BMP 1-Comprehensive Water Conservation Plans).

DESCRIPTION OF OUR CITY AND ITS WATER SYSTEMS

Santaquin City is the southern most City located in Utah County and partially straddles the County boundary into Juab County. It is truly the gateway city to Utah County with Interstate 15 running through and along its eastern side. It is also a major cross-roads for Utah County in that State Route 6 (Main Street) connects I-15 to the recreational amenities of the "Little Sahara Recreation Area" and the southern accesses to and around Utah Lake. It is also the corridor to

many smaller towns, including Genola, Goshen, Elberta, and Eureka.

Other jurisdictions around Santaquin include Payson, the Spring Lake Community, unincorporated County rural areas, and the Bureau of Land Management lands to the north. To the south are lands controlled by Juab County and the small incorporated community of Rocky Ridge. Santaquin is bounded on the east by the mountainous lands managed by the Uinta National Forest and lands owned by the Utah State Department of Natural Resources, Division of Wildlife Resources. It is located about 70 miles south of the state capital, Salt Lake City and approximately 20 miles south of the county seat, Provo City.

The incorporated area of the city is approximately 6,468.5 acres or approximately 10.1 square miles. The growth boundary defined in the General Plan is approximately 12,815 acres or approximately 20.0 square miles. The population of Santaquin has grown from approximately 3,600 in 2000 to 9,128 in 2010 and is estimated to be nearly 9,700 in 2013. With large scale development projects that anticipate completion within the next 10 to 15-years, it is expected that the City's growth rate could exceed 3-6 % per year over the next ten years. The influx of population over the next several years will strain many aspects of the City water systems. Meeting the future needs of a growing population as well as the needs of current citizens has always been a top priority for city leaders and planners. As a result, well maintained and operated culinary and pressure irrigation water systems provide the citizens of Santaquin with water where and when needed. Currently the domestic water system provides water to 2,549 residential, 72 commercial, 5 industrial, and 8 institutional customers.

Open space and preservation of a "Community Prospering in Country Living" is of high value to our leaders and citizens. Consequently, open space, orchard, and agricultural preservation are a high priority. There is a Public Works Complex and nine developed parks (containing over 40 acres). There are three elementary schools, two public and one charter school, with their accompanying athletic fields, playgrounds, and other landscaped areas. Nebo School District has proposed three new schools within the next 10 years, a new a new elementary school, a new junior high school and a new high school.

Santaquin City's potable water sources come from seven springs up Santaquin Canyon and two deep wells located within the city. As previously discussed, Santaquin City has recently (2009) completed the installation of their pressure irrigation system to accommodate the growing need for outside watering and to preserve the use of surface waters historically used to flood irrigate part of the land currently under development. The water supply for the pressure irrigation system comes from surface and sub-surface sources. The largest shares owned by the City are in Summit Creek Irrigation & Canal Company. The water provided under these shares is, and will continue to be, used for irrigation of lawns, gardens, school athletic fields, playgrounds and other landscaped areas, church landscaped and recreation areas, city-owned parks, and other open spaces. This lesser quality surface water, that does not require treatment, conserves the higher quality water that comes from the city's springs and culinary wells for the potable water system. Each connection to the PI system is metered and an electrical connection from the PI meter is linked to the culinary water meter, making it possible for both meters to be read at the same time.

The City has completed a new sewer treatment plant utilizing Membrane Biological Reactor (MBR) technology which reclaims sewer water to produce high quality type-I water. Funding sources for this project included: Utah Division of Water Quality (SRF), United States Department of Agriculture-Rural Development (RD), Central Utah Water Conservancy District,

and an EPA-STAG Grant. Planning for the facility included a Wastewater Treatment Facility Master Plan, public involvement including: several open houses, meetings of a Community Advisory Committee and more. An important segment of this Master Plan was the planned use of the type-I effluent water in the pressure irrigation system. Santaquin City has received approval from the Utah State Engineer, dated October 20, 2009 for the reuse of this effluent (See Appendix B).

Inventory of Water Resources

Santaquin City supplied 2,413 acre-feet of water to their culinary water system in calendar year 2012. This is a drop from the amount supplied in 2007 due to the separation of pressurized irrigation from the culinary system outlined in our 2007 report. The previous year's supply was 1,919 acre-feet due to a very good water year and high snow pack. Springs provide approximately 68.7 % of the potable water delivered in 2012, the balance coming from wells. Wells will supply potable water for future growth. The City presently has developed well capacity to supply up to 4,904 acre-feet annually, more than double the volume of potable water supplied in 2012. The city also has developed spring water capacity that historically has supplied an average of 1,507 acre-feet annually for the last five years. By combining these two sources of water for our culinary water supply, the city has the ability to deliver 6,411 acre-feet of water annually, more than 2-2/3 times the amount supplied in 2012. Under current water rights, the city is entitled to withdraw 6,100 acre-feet annually from the wells and springs shown below. This shows that the city has the ability to distribute nearly 2-2/3 times the amount of water that was delivered in 2012.

By ordinance, future development is required to provide water rights/irrigation shares to the City. Santaquin City Code Title 8, Chapter 1, Section 12 requires "that land annexed to the city be accompanied by water rights sufficient to accommodate the needs of the existing and potential occupants of the land annexed." Diversion of this water historically is from streams, springs, shallow wells (artesian) and subsurface drains. We anticipate that the amount of water needed for future growth will be within the available yield from the springs and the aquifer supplying the wells. Table 2 shows the City-Owned Culinary Water Rights.

Table 2

City-Owned Water Rights			
Source Name/No.	Water Right #	CFS	Acre-feet
SANTAQUIN CANYON SPRINGS	51-1013	2.00	1,447.955
CENTER STREET WELL	51-1348 (A27810)	2.48	1,795.464
	51-1347 (A27809)	2.52	1,824.423
CEMETERY WELL	51-1348 (a16256)		
EAST SIDE WELL	51-1347 (a24465)		
SUMMIT RIDGE WELL	53-1496 (a25719)		807.38
ALL WELLS (4 TOTAL)	51-7045 (a26290)		224.77

Santaquin City also owns surface water rights for its pressurized irrigation system from Summit Creek Irrigation Canal Company. See Appendix C

Water Budget

Table 3 shows the amount of water delivered to the culinary water system and the metered outflows to end-users for the years 2008 to 2012. The column labeled % Diff. shows a significant difference between inflow and metered sales, although the percent is generally decreasing. This number should be single digit. The possible reasons for this difference are discussed later under problems identified.

Table 3

Culinary Water Budget										
	INFLOW (AF)		METERED SALES (AF)							
Year	Wells	Springs	Total	Residential	Commercial	Industrial	Institutional	Wholesale	Total	%Different
2008	656.99	1,682.79	2,339.78	533.13	70.35	0.00	22.48	0.00	625.97	73.25%
2009	663.27	1,458.74	2,122.01	360.20	62.58	0.00	20.01	0.00	442.79	79.13%
2010	710.40	1,382.63	2,093.03	647.62	51.84	0.00	3.57	0.00	703.02	66.41%
2011	489.41	1,429.28	1,918.69	629.31	69.30	0.00	4.38	0.00	702.98	63.36%
2012	831.42	1,581.81	2,413.23	627.64	71.73	0.00	3.62	0.00	702.99	70.87%

Present Water Use and Future Water Needs

The metered sales for all uses of potable water divided by the number of people living in Santaquin in 2012, averages a daily use of 222.1 gallons per capita per day (gpcd). Compared to the statewide average of 293 gpcd and 184 gpcd nationally, our per capita use is approximately 24% lower than the state average and 17% higher than the national average.

Figure 1 shows the total monthly water use in the Santaquin culinary water system during 2012.

Figure 1
Santaquin City Culinary Water
Delivered 2012

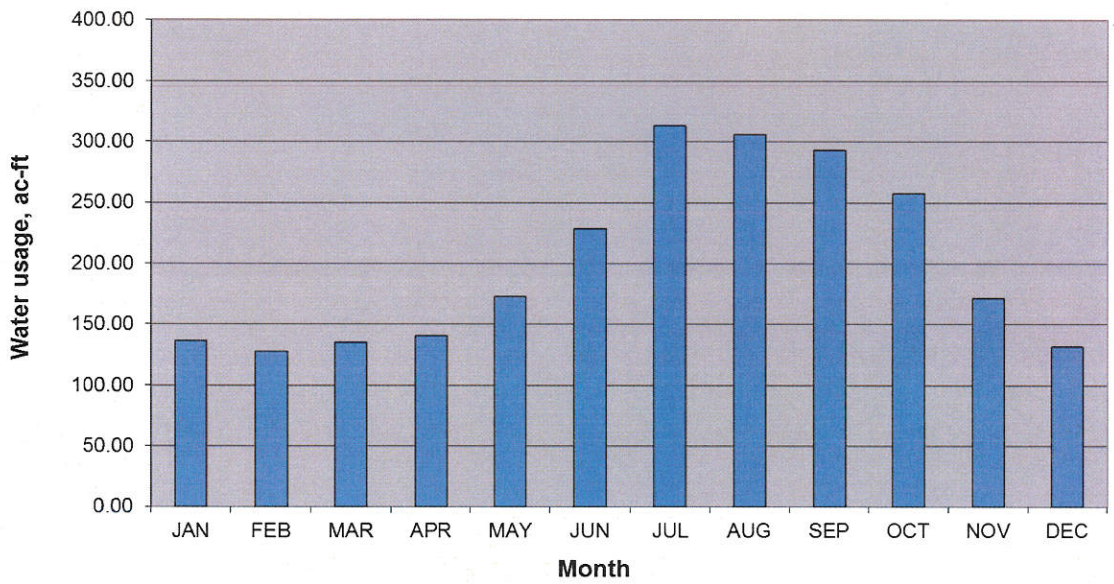
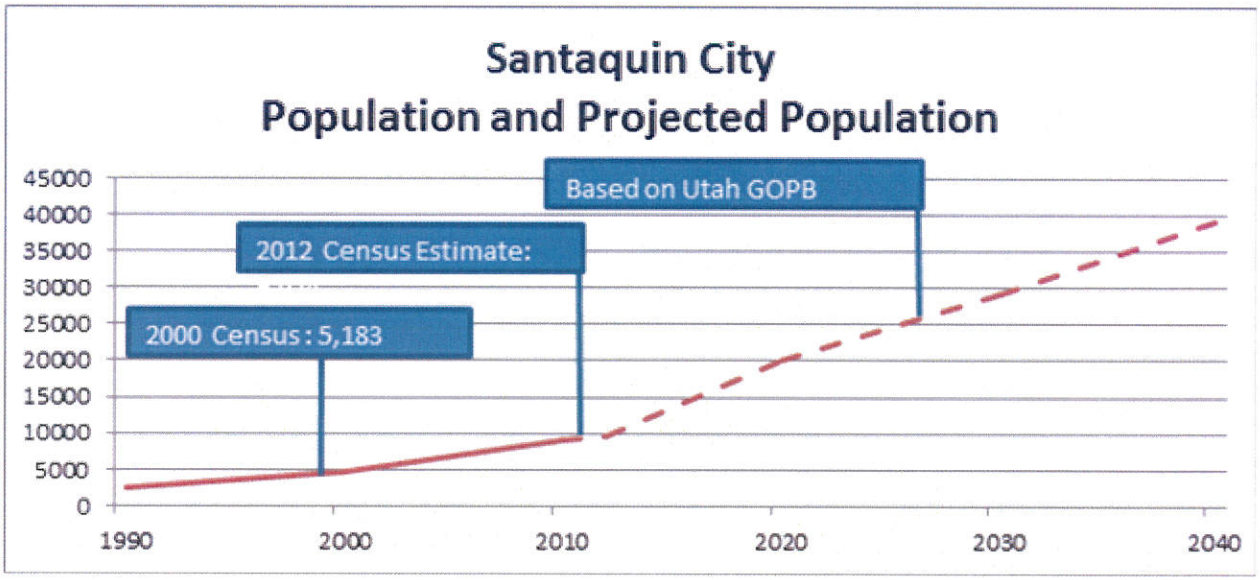


Figure 2 shows population projections for Santaquin City through 2040.



During the early 2000's Santaquin had an average annual growth rate of about 8 percent which slowed during the economic downturn of 2008. Based on the April 27, 2007 General Plan, the high-density build-out population is 72,957 and the low- density build-out population is 46,141. Using the above population projections and the current water usage of 222.1 gpcd, Santaquin City will need approximately 18,154 acre-feet of water annually for the high-density build-out population and 11,482 acre-feet of water annually for the low density build-out population.

WATER PROBLEMS, CONSERVATION MEASURES AND GOALS

Problems Identified

The City Staff identified and prioritized several problems during the investigative phase of preparing this Water Conservation Plan. Those problems are as follows:

- Water not metered, accounted for, and/or billed such as City owned facilities (i.e. City Center, Public Works, City Parks and Streetscapes).
- Spring flow metered coming from the springs to the chlorinator and then metered from the chlorinator to the upper tank. The difference in these two readings is the overflow from the springs. This has a potential for being part of the difference between water delivered and metered sales.
- Water not metered, accounted for, and/or billed such as water used for flushing sanitary sewer lines, testing and flushing new water lines and storm drain lines and street sweeping.
- Contractor authorized use or unauthorized use of water for construction purposes. Authorized use is metered by a hydrant meter or by load count, reported and billed

separately. Unauthorized use is by contractors, builders, etc. obtaining water from hydrants without having notified the city.

- Inaccuracy of meters as they wear.
- Citizens lack understanding of water conservation.
- Large landscape areas such as park space, open space, schools, etc.
- Leak detection and repair.

Each problem represents an opportunity to further reduce water use. The opportunity exists to solve the above problems through a combination of accounting for all water delivered from the culinary and pressure irrigation systems, monitoring and billing for authorized use, reducing unauthorized use, verification of meter accuracy and replacement of inaccurate meters, education, reduction in high water-use landscaping and repair of leaks.

The opportunity exists to realize a more balanced water budget by installing meters on culinary and pressure irrigation services to city owned facilities and "billing" the appropriate fund for the water used rather than having the water fund carry the burden. Meters should also be used to measure the amount of water used for flushing sewer lines and new water lines and for street sweeping as much as is practical (BMP 2-Universal Metering).

Additional opportunities to reduce water use can be found in two of the remaining problems. Authorized use of water by contractors, builders, etc, could be metered, rather than using a load count, to provide accuracy in water usage (BMP 2-Universal Metering). There is also a need for increased enforcement, with appropriate fines, for unauthorized use of water by contractors, builders and others (BMP 4-Water Conservation Ordinances).

The opportunity exists to adopt a meter testing program. Santaquin City currently has a meter replacement program to replace worn or broken meters that no longer produce meter reads. All meters have been replaced since 1998 (BMP 2-Universal Metering).

The opportunity exists to educate a new generation of wise-water users. This can be assisted with a strong sustained water education program in the public and private schools (BMP 11-School Education Programs).

The opportunity exists to promote water conservation programs available for high volume water users that maintain large landscape areas (BMP 12-Conservation Programs for Commercial, Industrial and Institutional Customers).

The opportunity also exists to promote a 'leak detection and repair program' (BMP 7-System Water Audits, Leak Detection and Repair).

Water Conservation Goals

In pursuit of solutions to the problems identified previously, and in light of the variety of conservation measures available to solve these problems, the following goals have been identified:

- **GOAL #1**

  Reduce the percent of unaccounted for inflow to the system. Install water

meters at the Santaquin City Center, Public Works Complex, and City Parks that use culinary and pressure irrigation water. Metering these facilities will allow billing the appropriate fund for water use payable to the water fund.

- **GOAL #2**

  Bill for water supplied from the culinary and pressure irrigation systems to city parks and public properties. The operation and maintenance cost for parks and public properties are paid for from general funds, and that fund should pay the water fund for services rendered.

- **GOAL #3**

  Implement a meter-testing and replacement program. Adopt a program to test all meters and replace excessively worn, broken and inaccurate meters to improve the water budget and increase revenue to the water fund.

- **GOAL #4**

  Implement leak detection and repair programs. Adopt a program to detect leaks and repair them that will improve the water budget and decrease costs for the water department.

CURRENT CONSERVATION PRACTICES

In order to solve the problems identified above and take advantage of the many associated opportunities, specific water conservation measures must be identified and evaluated. Santaquin has already implemented several water conservation measures that are listed in the International Building Code (IBC) and the International Plumbing Code (IPC) as adopted by the State of Utah (BMP 10-Indoor Water Conservation). These, along with additional measures that will effectively help us manage Santaquin City's water systems, are discussed below.

Water conservation for both the culinary system and the pressure irrigation system is directed at education and information sharing regarding the water available for a given water year.

1. **Water Education Program (BMP 11-School Education Programs)**

The following information on efficient outdoor and indoor water use is available to the citizens of Santaquin through the City Center and Public Works Department. This information is also occasionally distributed with the water users' monthly bill.

Outdoor Water Use:

- Use pressure irrigation system for watering of landscaping, if available. Most residential and some commercial areas have the pressure irrigation system available for use.
- Water landscape only as much as required by the type of landscape, and the specific weather patterns of our area, including cutting back on watering times in the spring and fall.
- Do not water on windy days and/or rainy days.
- Do not water during the hours of 10:00 AM and 6:00 PM.
- Sweep sidewalks and driveways instead of using the hose to clean them.
- Wash your car from a bucket of soapy (biodegradable) water and rinse while

parked on or near the grass or landscape so that all the water running off goes to beneficial use instead of running down the gutter to waste.

- Check for and repair leaks in all pipes, valves, faucets, hoses etc. on culinary and secondary system. Verify there are no leaks by turning everything off and checking your water meter to see if it is still running. Some underground leaks may not be visible due to draining off into storm drains, ditches, or traveling outside your property.
- Periodic checks by city staff on service line leaks.
- Adjust and repair sprinkler heads to maintain proper spray patterns and eliminate waste.
- Periodically check and adjust timers on sprinkling systems.
- Use mulch around trees and shrubs, as well as in your garden to retain as much moisture as possible. Areas with drip systems will use much less water, particularly during hot, dry and windy conditions.
- Keep your lawn well trimmed and all other landscaped areas free of weeds to reduce overall water needs of your yard.
- Discourage water fountains.
- Encourage low water landscaping at interchanges, planting strips, etc in the city.

In addition to the above information, there are other opportunities available for high volume water users to receive information and on site assistance that can advance water conservation measures. Three different organizations will make an on site visit to conduct water audits, analyze usage and advise users on water conservation procedures they can implement. These organizations are as follows: The US Bureau of Reclamation, Rural Water Association of Utah, and the Utah State University Cooperative Extension in Utah County. The services provided by these organizations are a valuable resource for high volume water users. Santaquin City encourages participation in these programs as it will assist the city with water conservation efforts (BMP 12-Consevation Programs for Commercial, Industrial and Institutional Customers).

Indoor Water Use:

About two-thirds of the total water used in a household is used in the bathroom. Concentrate on reducing your bathroom use. Following are suggestions for this specific area:

- Do not use your toilet as a wastebasket. Put all tissues, wrappers, diapers, cigarette butts, etc. in the trashcan.
- Check the toilet for leaks. Is the water level too high? Put a few drops of food coloring in the tank. If the bowl water becomes colored without flushing, there is a leak.
- If you do not have a low volume flush toilet, put a plastic bottle full of sand and water to reduce the amount of water used per flush. However, be careful not to over conserve to the point of having to flush twice to make the toilet work. Also, be sure the containers used do not interfere with the flushing mechanism.
- Take short showers with the water turned up only as much as necessary. Turn the shower off while soaping up or shampooing. Install low flow showerheads and/or other flow restriction devices.
- Do not let the water run while shaving or brushing your teeth. Fill the sink or a

glass instead.

- When doing laundry, make sure you always wash a full load or adjust the water level appropriately, if your machine will do that. Most machines use 40 gallons or more for each load, whether it is two socks or a week's worth of clothes.
- Repair any leak within the household. Even a minor slow drip can waste up to 15 to 20 gallons of water a day.
- Know where your main shutoff valve is and make sure that it works. Shutting the water off yourself when a pipe breaks or a leak occurs will not only save water, but also eliminate or minimize damage to your personal property.
- Keep a jar of water in the refrigerator for a cold drink instead of running water from the tap until it gets cold. You are putting several glasses of water down the drain for one cold drink.
- Plug the sink when rinsing vegetables, dishes, or anything else; use only a sink full of water instead of continually running water down the drain.

2. Water Rates (BMP 3-Incentive Water Conservation Pricing)

Designing an appropriate rate schedule is a complex task. Rate design is a process of matching the costs of operating the water system to the unique economic, political, and social environments in which the city provides its service. The cost of delivering the service must be evaluated and understood. Each water system has unique assets and constraints. Based on the characteristics of the system, and past capital and operating costs, revenue requirements can be estimated.

Tables 4 and 5 show the current monthly rate structure for culinary and pressure irrigation.

Table 4. Water Rates With or Without Pressure Irrigation Available

Base Rate	$17.97			
Usage Volume	0-4,000 gal	4,001-8,000 gal	8,001-12,000 gal	12,001 + gal
Volume Charge	$0.53/ 1,000 gal	$0.79/ 1,000 gal	$1.05/ 1,000 gal	$1.95/ 1,000 gal

Users are discouraged from excessive use by this graduated rate structure.

The City will conduct a Water Systems Rate Analysis about every 3 to 5 years. Based on the results of the analysis the City Council may make changes.

Table 5. Pressure Irrigation Water Rates

Monthly Rates		
	1" Service	1-1/2" Service or larger
Base Rate	$13.12	$20.42
Volume Charge	$0.68/ 1,000 gal	$0.68/ 1,000gal

3. Water Conservation Ordinances (BMP 4-Water Conservation Ordinances)

Santaquin has several city ordinances in place that aid with water conservation measures. Santaquin City Code Title 10, Chapter 15, Section 1 encourages the conservation of water resources through inclusion of more drought-tolerant plants for new developments. Santaquin City ordinance # 12-02-2006, effective 12-07-2006 adds the defining term "Xeriscaping" to the language of the city's landscaping standards for new developments. Xeriscaping is a very effective measure used to achieve water conservation. Santaquin City Code Title 8, Chapter 1, Section 16 makes it unlawful for water users to waste water or allow water to be wasted by faulty equipment, intentionally allowing storage containers to overflow and or allowing unauthorized persons to obtain water regularly from any water users' premises. Santaquin City Code Title 8, Chapter 1, Section 18 allows for penalties to be assessed including forfeiture of services and, the levying of a Class B misdemeanor fine and or incarceration of those guilty of violating any rules, regulations or ordinances controlling the City water system.

COST ANALYSIS

Benefit of Reaching Goal #1:

Reducing the ratio of inflow to metered sales will improve the Water Balance and result in more revenue to the Water Fund. The result of installing water meters at the City Center, Public Works Complex, and Parks is more accurate accounting of the water used and a more correct water budget comparison to evaluate per capita use. Payment of revenues to the Water Fund from other funds receiving benefit of service from the water systems gives a more accurate basis on which to determine future water rates. Culinary use in city parks is limited to rest rooms, drinking fountains, and hose spigots by the pavilions. All new parks will have meters installed.

Cost of Reaching Goal #1:

The cost incurred to achieve this goal is a one-time cost to install the meters. The labor and equipment will be provided by existing city personnel using city owned equipment. It is estimated that the costs for materials are as follows:

Pressurized Irrigation System:

◆ 8" Meter – Cemetery	$7,130
◆ 8" Meter – West Park/Ball Field/Arena	$7,130
◆ 4" Meter – City Hall Lawns	$6,503
◆ 4" Meter – Orchard Hills Park	$6,503
◆ 2" Meter – City Public Works Shop Yard	$1,711
◆ 2" Meter – Library Yards	$1,711

Culinary System:

◆ 2" Meter – City Public Works Shop	$1,711
◆ 1" Meter – City Hall	$748
◆ 1" Meter – City Public Works Shop	$748
◆ 1" Meter – Snack Shack	$748

It is not possible to estimate the increased revenue to the water fund until a full year of metering data has been recorded. It is anticipated that the City Parks will likely show the

highest use. Initially, Santaquin City will strive to reach Goal #1 by June 30, 2016.

Benefit of Reaching Goal #2:

The result of billing for water supplied from the pressure irrigation system to city parks and public properties will be increased revenue to the water fund. The increased revenue will make evaluation of water rates more accurate and equitable.

Cost of Reaching Goal #2:

This cost is expected to be minimal. These billings are expected to be in place by June 30, 2017.

Benefit of Reaching Goal #3:

Implementing a meter-testing program will provide accurate water use data that will increase revenue to the water fund and encourage conservation of water. The city's water budget will be more accurate.

Cost of Reaching Goal #3:

Personnel in the Water Department will do the meter testing. The meter replacement cost is already part of the annual Operations, Maintenance, and Replacement budget of the Water Department. Monitoring improvement in the water budget and income to the water fund is necessary as meters are tested and replaced. Implementation is expected by June 30, 2016.

Benefit of Reaching Goal #4:

Implementation of a leak detection and repair program using methods consistent with American Water Works Association's *Water Audit and Leak Detection Guidebook* will help to reduce unaccounted for water to an acceptable level (BMP 7-System Water Audits, Leak Detection and repair).

Cost of Reaching Goal #4:

Personnel in the Water Department will implement this program along with their normal duties. This program would be served best by including costs in the annual budget of the Water Department. Implementation is expected by June 30, 2017.

IMPLEMENTING/UPDATING THE WATER CONSERVATION PLAN

To insure that the goals outlined above are reached, appropriate tasks must be determined, responsibility fixed with the logical person or department, and a time line set for completion of each task. The city manager and city staff will be responsible to carry out the necessary tasks within the appropriate time constraints.

Both City Staff and Elected Officials have reviewed this Water Conservation Plan. It will be on the City Council agenda for adoption December 11, 2013. The members of the City Council are:

James DeGraffenried, Mayor

Keith Broadhead, Council Member
Matt Carr, Council Member
Kirk Hunsaker, Council Member
James Linford, Council Member
Rick Steele, Council Member

The water conservation plan will be revised and updated as required to meet changing conditions and needs. This plan will be updated and resubmitted to the Utah Division of Water Resources in February 2018, as required by Legislative House Bill 153. The ordaining ordinance for the water conservation plan is attached as Appendix A.

ORDINANCE NO. 12-01-2013

AN ORDINANCE OF THE CITY COUNCIL OF SANTAQUIN CITY, UTAH COUNTY, UTAH, ADDING A WATER CONSERVATION PLAN ORDINANCE BY ADOPTING CHAPTER 6 "WATER CONSERVATION PLAN" INTO THE SANTAQUIN CITY CODE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the adoption of a water conservation plan has been mandated by the State of Utah; and

WHEREAS, Santaquin City operates a culinary water system and a pressurized irrigation system; and

WHEREAS, the Santaquin City Council understands the pressing need to use water in a more efficient manner to allow for future sustained growth of the community; and

WHEREAS, City staff have caused a water conservation plan to be created; and

WHEREAS, the next and final step in putting a water conservation plan into place for Santaquin City is the adoption of a water conservation plan ordinance; and

WHEREAS, the City Council of Santaquin City desires to adopt a water conservation plan ordinance for the health, safety and welfare of the citizens of Santaquin City and place the ordinance into the Santaquin City Code; and

WHEREAS, the ordinance being adopted will achieve this stated purpose;

NOW, THEREFORE, BE IT ORDAINED by the City Council of Santaquin City, Utah County, Utah, as follows:

SECTION I.

TITLE 8, Utilities, Chapter 6 of the Santaquin City Code is hereby to read as follows:

8-6-1 TITLE:

This ordinance shall be known as the "Water Conservation Plan Ordinance."

8-6-2 PURPOSE:

The purpose for this ordinance is to create a plan for water conservation in Santaquin City by establishment of water conservation measures and goals.

8-6-3 ESTABLISHMENT OF CONSERVATION MEASURES AND GOALS:

There is hereby established a set of conservation measures and goals for Santaquin City as detailed in the Water Conservation Plan. (See Attached Plan)

SECTION II. Codification, Inclusion in the Code, and Scrivener's Errors

It is the intent of the City Council that the provisions of this ordinance be made part of the City Code as adopted, that sections of this ordinance may be re-numbered or re-lettered, that the word *ordinance* may be changed to *section*, *chapter*, or other such appropriate word or phrase in order to accomplish such intent regardless of whether such inclusion in a code is accomplished, sections of the ordinance may be re-numbered or re-lettered. Typographical errors which do not affect the intent of this ordinance may be authorized by the City without need of public hearing by its filing a corrected or re-codified copy of the same with the City Recorder.

SECTION III. Severability

If any section, phrase, sentence, or portion of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions thereof.

SECTION IV. Effective Date

The City Recorder shall deposit a copy of this ordinance in the official records of the City on December 12th, 2013, and before 5:00 p.m. on that same day, shall place a copy of this ordinance in three places within the City. This ordinance shall become effective at 5:00 p.m. on December 12th, 2013. *The plan will be amended no less than every five years and will continue to play a vital role in the future development of Santaquin City, Utah.*

Passed and duly adopted this 11th day of December, 2013.

JAMES E. DEGRAFFENRIED, Mayor

SANTAQUIN CITY Incorporated January 4, 1932 STATE OF UTAH

ATTEST:

SUSAN B. FARNSWORTH
Santaquin City Recorder

Council Member James Linford yes
Council Member Rick Steele yes
Council Member Keith Broadhead yes
Council Member Matthew Carr yes
Council Member Kirk Hunsaker yes

STATE OF UTAH)
) ss.
COUNTY OF UTAH)

I, SUSAN B. FARNSWORTH, City Recorder of Santaquin City, Utah, do hereby certify and declare that the above and foregoing is a true, full, and correct copy of an ordinance passed by the City Council of Santaquin City, Utah, on the 11th day of December, 2013, entitled

"AN ORDINANCE OF THE CITY COUNCIL OF SANTAQUIN CITY, UTAH COUNTY, UTAH, ADDING A WATER CONSERVATION PLAN ORDINANCE BY ADOPTING CHAPTER 6 "WATER CONSERVATION PLAN" INTO THE SANTAQUIN CITY CODE; AND PROVIDING AN EFFECTIVE DATE"

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Corporate Seal of Santaquin City Utah this 11th day of December, 2013.

SANTAQUIN CITY Incorporated January 4, 1932 STATE OF UTAH

(SEAL)

SUSAN B. FARNSWORTH
Santaquin City Recorder

AFFIDAVIT OF POSTING

STATE OF UTAH)
) ss.
COUNTY OF UTAH)

I, SUSAN B. FARNSWORTH, City Recorder of Santaquin City, Utah, do hereby certify and declare that I posted in three (3) public places the ordinance which is attached hereto on the 12th day of December, 2013.

The three places are as follows:

1. Zions Bank
2. Post Office
3. City Office

I further certify that copies of the ordinance so posted were true and correct copies of said ordinance.

SUSAN B. FARNSWORTH
Santaquin City Recorder

The foregoing instrument was acknowledged before me this 12 day of December 2013 by SUSAN B. FARNSWORTH.

My Commission Expires: 10/1/17

Notary Public

Residing at: Utah County

SHANNON HOFFMAN
Notary Public, State of Utah
Commission #670670
My Commission Expires
October 01, 2017

APPENDIX B

Order of State Engineer for the State of Utah

Regarding Water Reuse

GARY P... HERBBR7
Governor
GREGORY S. BELL
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Water Rights

MICHAEL R. STYLER KENT L. JONES
Executive Director *State Engineer/Division Director*

ORDER OF THE STATE ENGINEER
In the Matter of Sewage Effluent Reuse Application Number NS015

Sewage Effluent Reuse Application Number NS015 in the name of Santaquin City was filed February 2, 2009. It is proposed to reuse 6,099.9 acre-feet per year of treated effluent water from a future water reclamation facility located within the Santaquin city limits. The notification states that Water Right Numbers 51-1013, 51-1347, 51-1348, 51-7045, and 53-1496 are the basis for the proposed reuse. There are currently no discharges to receiving water and the City does not hold a discharge permit. Under this notification it is proposed to use the treated effluent water for municipal purposes within the service areas of Santaquin City.

The application was advertised in the Payson Chronicle on April 29 and May 6, 2009. A protest was filed by the Bureau of' Reclamation. The protestant expressed concerns related to the quantification of the underlying water right based on historical diversion and depletion and potential infiltration of water into the sewage system. A hearing was not held.

The State Engineer has reviewed the application, the protest, and the underlying water rights_ The State Engineer's review of a sewage reuse application is limited to determining whether or not the use of the sewage effluent is consistent with the underlying water rights and to determine the amount of water able to be used under these rights. The applicant provides the following review of the underlying water rights, including the diversion/depletion. and return flow requirements:

Water Right	Source	Use	Quantifying Document	Diversion		Depletion	
				CFS	AF	CFS	AF
51-1013	Summit Creek	Mun./Dorn.	Certificate 1238	2.00	1447.9	1.72	1245.2
51-1347	Underground	Mun./Dom.	Certificate 6251	2.52	1824.4	2.52	1824.4
51-1348	Underground	Municipal	Certificate 9073	2,4$	1795.4	2A8	1795.4
51-7045	Underground	Irrigation	Change a26290 –	--	224.8	--	95.3
53-1496	Underground	Irrigation	Change a25719	--	807.4	--	342.3
			Total:		6099.9		5302.7

The applicant claims the right to divert water under Water Right Numbers 51-1013, 51-1347, and 51-1348 at the full flow rate 24 hours a day, 365 day a year, and the right to deplete 100% of that water. The law states, "Beneficial use shall be the basis, the measure and the limit of all rights to the use of water in this state." The beneficial use, in this case, is municipal use, This is a general definition that differs from, for example, an irrigation water right which can be quantified for

1 The applicant is required to return 0.28 cubic feet per second of flow to the natural channel per an agreement between the Town of Santaquin and Summit Creek Irrigation Company, *Certificate of Appropriation of Water No, 12358.*

1594 West North Tornplc, Suite 220, PO Box 146300, Salt Lake City, UT 841 14-6300
telephone (801) 538-7240 facsimile (601) 538-7467 w *w.wnrerrights, utah.gov*

diversion and depletion based upon the number of acres irrigated. The term "municipal use" can apply to a wide variety of uses such as indoor 'domestic, irrigation, commercial, industrial, and almost any other application for which the city could conceivably use the water, whether the application is non-consumptive, completely consumptive, or somewhere in between. There is no limit to the maximum annual diversion or depletion quantification associated with the municipal water rights other than the flow rates as detailed in the table. It is, therefore, the State Engineer's opinion that Water Right Numbers 51-1013, 51-1347, and 51-1348 can be 100% depleted by Santaquin City for municipal purposes, For Water Right Numbers 51-7045 and 53-1496, the historical beneficial use is irrigation and the State Engineer believes it is appropriate to evaluate at and limit the historical diversion to a depletion percentage of 42.4 %.

Also of concern to the protestant is infiltration of groundwater or stormwater into the sewer collection system, which could act to increase inflows to the treatment plant. The applicant indicates the sewer system is separate from the stormwater system and ranges from five to twenty-five feet underground, well above the static water table.

The problem before the State Engineer comes in evaluating how much water is available for reuse. This amount is totally dependent on how much water is diverted, how the water is used, and how much water returns to the sewage system for treatment. The applicant's analysis is correct only if all water diverted for municipal use is returned as effluent to the treatment plant The applicant indicates these rights will be separate from a secondary irrigation system recently installed by the City, and that a very high percentage of the water diverted under these rights will be used for indoor culinary use and returned as flows to the treatment plant.

The applicant will have the responsibility of maintaining accurate records to determine those amounts of water. These records should include all water diverted under the water rights listed; the amount of water of that diverted under the rights that is used for inside and outside uses; calculations showing 20% depletions for inside use and 70% for outside use; the amount of water delivered to the sewer system (both calculated and measured); the amount of water reused, the amount of water depleted from the reuse (based on 70% depletion for irrigation; there may also be losses from pond evaporation); the combined total depletion from the first use and the reuse; and evidence showing that the diversions do not exceed allowable diversions and water, available under the water right concerned arid that total depletion does not exceed the allowable depletion. Those records should be kept monthly and submitted to the State Engineer annually or as requested by the State Engineer to demonstrate that the applicant's use and reuse of the water are within the limits of the rights. If this is done, the applicant's use of effluent should be consistent with the underlying water rights.

It is, therefore, **ORDERED** that the proposed use of treated effluent water under this application is APPROVED subject to the conditions listed below:

---

2 Consumptive Use of Irrigation Crops in Utah," Research Report 145, Utah Agricultural Experiment Station, Utah State University, Logan, Utah, October 1994, Table 25" Salt Lake Station.

1. The amount of sewage effluent that may be annually reused under this application is limited to the amount of water actually diverted under Water Right Numbers 51-1013, 51-1347, 51-1348, 51-7045, and 53-1496 to a maximum of 6,099.9 acre--feet. The amount of depletion associated with use and reuse of the water diverted must not exceed 5,302.7 acre-feet.

2. The applicant shall install and maintain measuring and recording devices to meter all water diverted under water rights identified in the reuse application and all water reused under this application and shall annually report this data to the Division of Water Rights Water Use Data Program. In addition, information necessary to determine the amount of water available to reuse considering depletion associated with use shall be recorded and be kept monthly and reported annually to the State Engineer.

It is the applicants' responsibility to maintain a current address with this office and to update ownership of their water right. Please notify this office immediately of any change of address or for assistance in updating ownership.

Your contact with this office, should you need it, is with the Utah Lake/Jordan River Regional Office. The telephone number is 801-538-7240.

This Order is subject to the provisions of Administrative Rule R655-6-17 of the Division of Water Rights and to Sections 63-46b-13 and 73-3-14 of the Utah Code which provide for filing either a Request for Reconsideration with the State Engineer or an appeal with the appropriate District Court. A Request for Reconsideration must be filed with the State Engineer within 20 days of the date of this Order. However, a Request for Reconsideration is not a prerequisite to filing a court appeal. A court appeal must be filed within 30 days after the date of this Order, or if a Request for Reconsideration has been filed, within 30 days after the date the Request for Reconsideration is denied. A Request for Reconsideration is considered denied when no action is taken 20 days after the Request is filed.

Dated this 20th day of October, 2009.

Boyd Clayton for
Kent Jones, P.E., State Engineer

Mailed a copy of the foregoing Order this 20th day of October 2009 to:

Santaquin City
c/o Dennis Barnes, Public Works Director
45 West 100 South
Santaquin, UT 84655

United States Bureau of Reclamation
c/o Jonathan B. Jones
302 East 1860 South
Provo, UT 84606-7317

Water Use Program
Division of Water Rights

BY: _____
Kelly K. Horne, Applications/Records Secretary

APPENDIX C

Project Annual Report for the

Santaquin City Pressure Irrigation System

PROJECT ANNUAL REPORT

FOR

Santaquin City

Pressure Irrigation System - Phase 1

Application Number: 830

December 11, 2013

Initial Prepared by:
J-U-B ENGINEERS, Inc.
240 West Center St, Ste 200
Orem, UT 84057

J·U·B ENGINEERS, INC.

Updated by Santaquin City Staff - 2013

PROJECT ANNUAL REPORT
FOR
Santaquin City
Pressure Irrigation System - Phase 1

December 11, 2013

I. Administrative Information

A. Project Name: Santaquin City Pressure Irrigation System - Phase 1

Application Number: 830

Administrative Contact:

Mr. Benjamin A. Reeves
Santaquin City Manager
275 West Main Street
Santaquin, Utah 84655
Telephone: (801) 754-3211
Fax (801) 754-3526
E-mail breeves@santaquin.org

Technical Contacts:

Mr. Wade Eva
Santaquin City Public Works Director
275 West Main Street
Santaquin, Utah 84655
Telephone: (801) 420-3006
Fax (801) 754-3526
E-mail weva@santaquin.org

Norm Beagley, P.E.
J-U-B Engineers, Inc
240 West Center Street, Suite 200
Orem, UT 8407
(801) 226-0393
Fax (801) 226-0394
E-mail neb@jub.com

B. Signature and Date:

James E. DeGraffenried, Mayor
Santaquin City

12-11-13
Date

II. Detailed Project Schedule and Expected Future Costs

A. Implementation of the Project

The system provided for the majority of outside watering for the 2013 season. Delivery of water began approximately April 15, 2013. The City filled the two lower zones of the system using water from Summit Creek in Santaquin Canyon. These two lower zones provide water for the majority of services within the City. The City filled the two upper zones using water supplied through two backflow preventers connected to the City culinary water supply. On October 15, 2013 the water supplies were turned off and the system drained by users. Pressure irrigation is used on most City parks and recreation complexes.

The system has one storage reservoir that will eventually supply water for all four pressure zones. The reservoir currently supplies water for the two lower pressure zones. Additional storage facilities and pump stations are planned but funding is currently unavailable for design and construction of these facilities.

Following is a project schedule showing construction, service availability and funding sources for the project:

Project Schedule

Area	Construction Begins	Service Begins	Source of Funds
The Main Pond Schedule 1	Summer 2008	Spring 2009	Utah Community Impact Board
West of I-15 and South of Main Street Schedule 2	Spring 2006	Spring 2007	Utah Community Impact Board & Water Conservation Credit Program
West of I-15 and North of Main Street Schedule 3	Spring 2007	Spring 2008	Utah Community Impact Board & Water Conservation Credit Program
East Side Backflow Prevention Devices Schedule 4	Winter 2009	Spring 2009	Utah Community Impact Board
East of I-15 Schedule 5	Spring 2008	Spring 2009	Utah Community Impact Board
Inlet Line to The Main Pond Schedule 1a	2010/2011	Spring 2011	Utah Community Impact Board
Connection of Center Street Well into PI System	Summer 2012	August 2012	Utah Community Impact Board

B. Project Funds

Funds for the Pressure Irrigation Project that were eligible for reimbursement from the beginning of the project until the end of fiscal year 2013 are detailed in table 3.

TABLE 3 - FUNDS EXPENDED

Source of Funds	Amount
Credit Program Funds	$5,000,000.00
Utah Community Impact Board	$7,226,458.75
Total of All Funds - Schedule 1, 2, 3 & 4	$12,256,908.13

Estimated funds for the completion of schedule 1a to be constructed during fiscal year 2013 are shown in table 4.

TABLE 4 - ESTIMATED FUNDS TO BE EXPENDED DURING FISCAL YEAR 2014

Source of Funds	Amount
Credit Program Funds	$0.00
Utah Community Impact Board	$0.00
Total	$0.00

III. Water Conservation

A. Water Conservation Realization

Water conservation began in 2007. The first full season of use was 2009. The volume of water that was conserved by implementation of the system was 1,373 acre-feet during the 2013 season.

B. Water Conservation Projection

Future water conservation that will occur as a result of implementation of this project has been estimated by applying the irrigation requirement to the estimated number of acres each year. The variables in this calculation were arrived at as follows:

- Irrigable Acres. The number of potentially irrigable acres in the area of the initial project was determined from the GIS maps of the area to be about 849 acres. The irrigable acreage was increased each year by 10,200 square feet of irrigable area for each new connection. It was estimated that the average future building lot in Santaquin will be 1/3 acre, or 14,375 square feet in size, and that the home, driveway and other impervious surfaces would cover

about 4,175 square feet, leaving 10,200 square feet of potentially irrigable land for each new building lot.

- Timing. The 849 acres will come available as the undeveloped land within the area of the initial project is developed.
- Table 5 shows the original projected water conservation.

TABLE 5 PROJECTED WATER CONSERVATION

Year		Irrigated Acres	Water Conserved (Acre-Ft)
1	2006	849	2,070
2	2007	873	2,129
3	2008	899	2,192
4	2009	927	2,259
5	2010	956	2,329
6	2011	986	2,404
7	2012	1,019	2,484
8	2013	1,053	2,568
9	2014	1,090	2,657
10	2015	1,129	2,752
11	2016	1,156	2,819
12	2017	1,185	2,889
13	2018	1,215	2,961
14	2019	1,245	3,036
15	2020	1,278	3,114
16	2021	1,311	3,196
17	2022	1,346	3,280
18	2023	1,382	3,369
19	2024	1,419	3,460
20	2025	1,458	3,555
21	2026	1,499	3,654
22	2027	1,541	3,757
23	2028	1,585	3,864
24	2029	1,631	3,976
25	2030	1,678	4,092

- Table 6 shows actual conservation to date as well as an updated projection for future conservation. The updated projection was estimated using a variable growth rate of 3% & 2% per year rather than the original planned growth rate of 6% per year. The effect of the lower growth rate is that realized conservation will occur later than projected. In Table 6 there appears to be an error in the number of connections shown for 2010. The accounting system that the City uses to track usage and connections appears to have double counted some connections, such as when water was shut off (for change in ownership and or non-payment) and then service was restored. Because the City is unable to determine how many connections were double counted, the table has not been changed.
- Note: Table 6 will be updated in 2014 to include water conservation actuals and projections that will incorporate water conservation generated by reusing water from the Santaquin Water Reclamation Facility (WRF) that came online on November 22, 2013

TABLE 6 SCHEDULE OF WATER CONSERVATION

Year		Number of connections	Irrigated Acres	Water Conserved
1	2006	0	0	0
2	2007	425	100	244
3	2008	1,451	340	828
4	2009	2,264	530	1,185
5	2010	2,654	621	1,248
6	2011	2,388	559	973
7	2012	2,381	558	1,041
8	2013	2,417	566	1,373
9	2014	2,491	583	1,420
10	2015	2,566	601	1,463
11	2016	2,644	619	1,507
12	2017	2,725	638	1,554
13	2018	2,808	657	1,600
14	2019	2,893	677	1,648
15	2020	2,981	698	1,700
16	2021	3,071	719	1,751
17	2022	3,164	741	1,804
18	2023	3,228	756	1,841
19	2024	3,294	771	1,877
20	2025	3,360	787	1,916
21	2026	3,428	803	1,955
22	2027	3,497	819	1,994
23	2028	3,568	836	2,036
24	2029	3,640	852	2,075
25	2030	3,714	870	2,118

IV. Issues and Solutions

Due to construction cost increases between when funding was obtained and facilities were constructed the project ended up with a shortfall of approximately 2.3 million dollars. The project was constructed to the point that available funding allowed and some facilities were postponed. Santaquin City will construct the remaining facilities as funding becomes available.

There are no foreseen problems in continuing to operate and maintain the project or to implement construction as needed.

V. Outlook

The original project is now delivering water to meet the demands for turf, landscaping, and garden irrigation. New developments are required to install pressure irrigation improvements and connect to the system. The system reduces the demand on the culinary system, hence saving on the capital, operation, maintenance, and replacement cost for new wells and/or treatment facilities that would be needed to treat the City's surface water for use in a single system.